



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

HOOK-WORM DISEASE *

By HARRIET B. GIBSON, R.N.

Graduate of the Scranton State Hospital, Scranton, Pa.

THIS is a disease common in tropical Europe and in the southern states of America, and is caused by the growth of the *Uncinaria* or hook-worm in the intestines of man and in many of the domestic animals. It is characterized by anæmia, stunted growth, and an indisposition to do any work.

Parasitology.—Two varieties of the worm are noted, commonly called the American and the European types. The American hook-worm is cylindrical shaped, 7–11 mm. long, and possesses a dorsal and ventral pair of lips at the mouth, a prominent buccal tooth, and four buccal lancets. The ova or eggs are thin-shelled, oval in shape, and are 60 to 70 mm. in length, and 30 to 40 mm. broad. These are usually found in the discharges of patients.

History.—The Old World hook-worm was first observed by Dubini in 1843, when he called it the *Uncinaria*. It was also studied by Raillet in 1885. The American type was studied and popularized among the medical profession by Dr. Charles Wardwell Styles, who at the American Sanitary Congress made the public announcement that the laziness and shiftlessness of the poor whites in the south were due to infection with the hook-worm disease, the germ of laziness, as it was called.

Sources of Infection.—This occurs in two ways: (1) through the skin, with dirt and fecal material getting into the general circulation and passing into the heart, lungs, larynx, cesophagus, stomach, and intestines, where they attach themselves with their lips; (2) the hook-worm also enters the system by the mouth, with food which has been contaminated, or with dirt which is eaten by some people of the south and the tropics.

Climate and Hygienic Surroundings.—The disease occurs in warm climates, especially in countries where the drainage and sewerage systems are not properly looked after. It is most common among people who come in contact with damp earth, as farmers, miners, tunnel diggers, and people who go bare-footed.

Symptoms vary with the severity of the disease, some cases being of great intensity, others of a rather mild type. The common symptom of the disease is an anæmia of characteristic form. The pallor is most

* Read at a meeting of the State Hospital Training School Alumnæ.

marked about the nose, resembling tallow in color. The skin is dry and parchment-like, perspiration being nearly suppressed. The eyes are of great diagnostic value, being a cross between the eyes of a fish and those of a drunkard. Oedema of the face, feet, and ankles is usually present. The face is stupid and bears an anxious expression. The appetite is ravenous at first but later it may be completely absent. Perversion of the appetite is a common symptom. A taste for chalk, charcoal, tobacco ashes, mud, clay, sand, and rotten wood is frequently noted. The muscles of the body are soft and flabby, the patient is weak, tires very easily, and is obliged to rest on the slightest exertion. Mental lassitude, headache, and dizziness are frequent.

In cases of infection before puberty, a delayed development and stunted growth are common among the poor whites in the southern states.

Diagnosis of the disease is made by the above symptoms and the finding of the ova in the stools.

Treatment.—The drugs used in the treatment of uncinariasis are thymol, male-fern, and betanaphthol, the best being thymol.

A regular treatment is usually given as follows: (1) The patient is dieted to get rid of all mucus in the alimentary tract. (2) Cascara or salts is given to clean out the bowel. (3) On the morning after the bowels are thoroughly emptied, thymol is given in 20–30 gr. doses. Two hours later 20 gr. are given again. Follow the last dose of thymol by a large dose of salts. The above treatment ought to be carried out three times. Alcohol, castor oil or any other solvents of thymol must never be given following the use of the drug. Male-fern is used in the dose of 1–2 drachms, followed by the use of salts.

Prevention.—Since the faeces of hook-worm patients represent the infection in concentrated form, it is clear that a proper disposal of the discharges is the great factor in preventing hook-worm disease. Build proper drainage sewers and privies, and insist that they be used. The use of shoes may be insisted upon to prevent entrance through the skin, but this is difficult to adopt if the patients are very poor. The water ought to be boiled, but even this is sometimes impracticable among the poor. If the faeces are disposed of, the danger of infecting the water is removed. To keep the hands clean is, of course, an excellent plan, but unfortunately is of limited application. The great principle is to prevent the dirt from becoming dirty, sweet clean dirt is not dangerous.